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WHEREAS:

Names and Addresses of Inventors:

Tempe, Arizona 85284

وتشعدين عومتكافني بالبعد يتنقلن بغ

1)	Edwin C. Weldon 23613 Skyview Terrace Los Gatos, California 95030	8)	Ananda H. Kumar 1296 Knollvisw Drive Milpitas, California 95035.
2)	Kenneth S. Collins 165 Knightshaven Way Sen Jose, California 95111	9)	Alexander M. Veytser 1429 Lloyd Way Mountain View, California 94040
3)	Arik Donde 733 Stendhall Lane Cupertino, California 95014	10)	Kadthala R. Narendrnath 3686 Slope View Drive San Jose, California 95148
4)	Brian Lue 1027 Mountain View Avenue Mountain View, Californie 84040	11)	Semyon L. Kata 810 Gonzalez Drive Sen Francisco, California 94132
5)	Dan Maydan 12000 Murietta Lane Los Altos Hills, Californie-94022	12)	Arnold Kholodenko 1747 Eucelyptus Drive Sen Francisco, Celifornia 94132
6)	Robert J. Steger 22293 Bahl Street Cupertino, California 95014	13)	Shamouil Shamouilian 6536 Little Falls Drive San Jose, California 95120
7)	Timothy Dyer 167 West Jeanine Drive	14)	Dennis S. Grimard 511 Liberty Pointe

(hereinafter referred to as Assignors), have invented a certain invention entitled:

### "ELECTROSTATIC CHUCK HAVING IMPROVED GAS CONDUITS"

for which application for Letters Patent in the United States was filed on November 6, 1997, under Serial No. 08/965,690; and

WHEREAS, Applied Materiels, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title, and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as invention), and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates, and other

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Ann Arbor, Michigan 48103

forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application-filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

Said Assignors hereby covenant and agree to cooperate with said Assignee to 2. enable said Assignee to enjoy to the fullest extent the right, title, and interest to said invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title, and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions, and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives, and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1998 1)

1998 2)

Kenneth S. Collins

2 of 3 PATENT \*\*\*\* \*\* REEL: 9276 FRAME: 0649

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3)	/	1998	Arik Donde
4)		1 <b>998</b>	Brian Lue
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6)	,	1998	Robert J. Steger
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B)		1998	Ananda H. Kumar
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### WHEREAS:

Names and Addresses of Inventors:

- 1) Edwin C. Weldon 23613 Skyview Terrace Los Gatos, California 95030
- 2) Kenneth S. Collins 165 Knightshaven Way Sen Jose, California 95111
- 3) Arik Donde 733 Stendhall Lane Cupertino, California 95014
- 4) Brian Lue 1027 Mountain View Avenue Mountain View, California 94040
- 5) Dan Maydan 12000 Murietta Lane Los Altos Hills, California 94022
- 6) Robert J. Steger 22293 Bahl Street Cupertino, California 95014
- 7) Timothy Dyer 167 West Jeanine Drive Tempe, Arizona 85284

- 8) Ananda H. Kumar 1296 Knollview Drive Milpitas, California 95035
- 9) Alexander M. Veytser 1429 Lloyd Way Mountain View, California 94040
- 10) Kadthala R. Narendrnath 3686 Slope View Drive San Jose, California 95148
- 11) Semyon L. Kats 810 Gonzalez Drive San Francisco, California 94132
- 12) Arnold Kholodenko 1747 Eucalyptus Drive San Francisco, California 94132
- 13) Shamouil Shamouilian 6536 Little Falls Drive San Jose, California 95120
- 14) Dennis S. Grimard 511 Liberty Pointe Ann Arbor, Michigan 48103

(hereinafter referred to as Assignors), have invented a certain invention entitled:

### "ELECTROSTATIC CHUCK HAVING IMPROVED GAS CONDUITS"

for which application for Letters Patent in the United States was filed on November 6, 1997, under Serial No.: 08/965,690; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title, and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as invention), and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates, and other

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PATENT REEL: 9276 FRAME: 0651

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March 20, 1991

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forms of protection (hereinsfter-referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assigners to have been received in full from said Assignee:

Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

Said Assignors hereby covenant and agree to cooperate with said Assignee to 2. enable said Assignee to enjoy to the fullest extent the right, title, and interest to said Invention harein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title, and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said Invention; and (f) for legal proceedings involving said invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions, and court actions; provided, however, that the expense incurred by seid Assignors in providing such cooperation shall be paid. for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigne and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives, and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1), 1998	Edwin C. Weldon	
2), 1998	Kenneth S. Collins	
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11)	,	1998	Semyon L. Kats
12)		19 <b>98</b>	Arnold Kholodenko
13)	,	1998	Shamouil Shamouilian
14)	. <u></u> ,	1998	Dennis S. Grimard
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WHEREAS:

Names and Addresses of Inventors:

1)	Edwin C. Weldon
	23613 Skyview Terrace
	Los Gatos, California 95030

- 2) Kenneth S. Collins 165 Knightshaven Way San Jose, California 95111
- 3) Arik Donde 733 Stendhell Lane Cupertino, California 95014
- 4) Brian Lue 1027 Mountain View Avenue Mountain View, California 94040
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- 7) Timothy Dyer 167 West Jeanine Drive Tempe, Arizona 85284

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- 13) Shamouil Shamouilian 6536 Little Falls Drive San Jose, California 95120
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1 of 3

Marsh 20, 1996

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PATENT REEL: 9276 FRAME: 0654

forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged. by said Assignors to have been received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said Invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

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1)	_, 1 <b>998</b>	Edwin C. Weldon	
2)	_, 19 <b>98</b>	Kenneth S. Collins	<b></b>
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13)	<u></u> ,	1998	Shamouil Shamouilian
12)	,	1998	Arnold Kholodenko
11)	,	1998	Semyon L. Kats
10)	,	1998	Kadthala R. Narendrnath
9)	,	1998	Alexander M. Veytser
8)	<i>'</i>	1 <b>998</b>	Ananda H. Kumar
7)	•	1998	Timothy Dyer
6)		1998	Robert J. Steger
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4)	-5/20,	1998	Romin dut Brien Lue
3}		1998	Arik Donde

2١

Anende H. Kumer

## WHEREAS:

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Names and Addresses of Inventors:

Edwin C. Weldon

	(hereinafter referred to as Assignors),	have inv	ented a certain invention entitled:
7)	Timothy Dyer 167 West Jeanine Drive Tempe, Arizona 85284	14)	Dennis S. Grimard 511 Liberty Pointe Ann Arbor, Michigan 48103
6)	Robert J. Steger 22293 Bahl Street Cupertino, California 95014	13)	Shamouil Shamouilian 6536 Little Falls Drive San Jose, California 95120
5)	Dan Maydan 12000 Murietta Lane Los Altos Hills, California 94022	12)	Arnold Kholodenko 1747 Eucalyptus Drive Sen Francisco, California 94132
4)	Brian Lue 1027 Mountain View Avenue Mountain View, Californie 94040	11)	Semyon L. Kats 810 Gonzalez Drive San Francisco, California 94132
3)	Arik Donde 733 Stendhall Lane Cupertino, California 95014	10)	Kadthala R. Narendrnath 3686 Slope View Drive San Jose, California 95148
2)	Kenneth S. Collins 165 Knightshaven Way San Jose, California 95111	9)	Alexander M. Veytser 1429 Lloyd Way Mountain:View, California 94040
1)	Edwin C. Weidon 23613 Skyview Terrace Los Gatos, California 95030	8)	Ananda H. Kumar 1296 Knoliview Drive Milpitas, California 95035

#### "ELECTROSTATIC CHUCK HAVING IMPROVED GAS CONDUITS"

for which application for Letters Patent in the United States was filed on November 6, 1997, under Serial No. 08/965,690; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Santa Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title, and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates, and other

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forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been received in full from said Assignee;

1. Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to and every reissue or extension of any of said Patents.

2. Said Assignors hereby covenant and agree to cooperate with said Assignee to enable said Assignee to enjoy to the fullest extent the right, title, and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title, and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said Invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions, and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives, and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

1), 1998	Edwin C. Weldon	-
2), 1998	Kenneth S. Collins	-
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Arik Donde	
4), 1998 Brien Lue	
5) <u>4/1/98</u> , 1998 <u>Dan Marshan</u> Dan Maydan	
6), 1998 Robert J. Steger	
7), 1998 Timothy Dyer	
8), 1998 Ananda H. Kumar	
9), 1998 Alexander M. Veytser	
10), 1998 Kadthala R. Narendmath	
11), 1998 Semyon L. Kats	
12), 1998 Arnold Kholodenko	
13), 1998 Shamouil Shamouilian	
14), 1998 Dennis S. Grimard	
CYCLERTANTUERNERAMI JYUNNELANI 3 OF 3 PATENT REEL: 9276 FRAME:	Name 25, 1999 0659

.

WHEREAS:

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Names and Addresses of Inventors:

1)	Edwin C. Weldon 23613 Skyview Terrace Los Gatos, California 95030	8)	Ananda H. Kumar 1296 Knollview Drive Milpitas, California 95035
2)	Kenneth S. Collins 165 Knightshaven Way San Jose, California 95111	9)	Alexander M. Veytser 1429 Lloyd Way Mountain View, California 94040
3)	Arik Donde 733 Stendhall Lane Cupertino, California 95014	10)	Kadthala R. Narendrnath 3686 Slope View Drive San Jose, California 95148
4)	Brian Lue 1027 Mountain View Avenue Mountain View, Californie 94040	11)	Semyon L. Kats 810 Gonzalez Drive San Francisco, California 94132
5)	Dan Maydan 12000 Murietta Lane Los Altos Hills, Californ <del>ia 940</del> 22	12)	Arnold Kholodenko 1747 Eucelyptus Drive San Francisco, California 94132
6)	Robert J. Steger 22293 Bahl Street Cupertino, California 95014	13)	Shamouil Shamouilian 6536 Little Falls Drive San Jose, California 95120
7)	Timothy Dyer 167 West Jeanine Drive Tempe, Arizona 85284	14}	Dennis S. Grimard 511 Liberty Pointe Ann Arbor, <mark>Mi</mark> chigan 48103
	(hereinafter referred to as Assignors),	have invo	ented a certain invention entitled:

## "ELECTROSTATIC CHUCK HAVING IMPROVED GAS CONDUITS"

for which application for Letters Patent in the United States was filed on November 6, 1997, under Serial No. 08/965,690; and

WHEREAS, Applied Materials, Inc., a corporation of the State of Delaware, having a place of business at 3050 Bowers Avenue, Sante Clara, California 95054 (hereinafter referred to as Assignee), is desirous of acquiring the entire right, title, and interest in and to said application (hereinafter referred to as Application), and the invention disclosed therein (hereinafter referred to as Invention), and in and to all embodiments of the Invention, heretofore conceived, made or discovered by said Assignors, and in and to any and all patents, inventor's certificates, and other

1 of 3	PATENT	March 20, 1996
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forms of protection (hereinafter referred to as Patents) thereon granted in any and all countries and groups of countries.

NOW, THEREFORE, in consideration of good and valuable consideration acknowledged by said Assignors to have been-received in full from said Assignee:

1. Said Assignors hereby sell, assign, transfer, and convey to Assignee the full and exclusive right, title, and interest (a) in and to said Application and said Invention; (b) in and to all rights to apply for patents on said invention in any and all countries pursuant to the International Convention for the Protection of Industrial Property or otherwise; (c) in and to any and all Applications filed and any and all Patents granted on said Invention in any and all countries and groups of countries, including each and every Application filed and each and every Patent granted on any application which is a division, substitution, or continuation of said Application; and (d) in and to each and every reissue or extension of any of said Patents.

Said Assignors hereby covenant and agree to cooperate with said Assignee to 2. enable said Assignee to enjoy to the fullest extent the right, title, and interest to said Invention herein conveyed in any and all countries and groups of countries. Such cooperation by said Assignors shall include prompt production of pertinent facts and documents, giving testimony, execution of petitions, oaths, specifications, declarations or other papers, and other assistance all to the extent deemed necessary or desirable by said Assignee (a) for perfecting in said Assignee the right, title, and interest herein conveyed; (b) for prosecuting any of said applications; (c) for filing and prosecuting substitute, divisional, continuing or additional applications covering said Invention; (d) for filing and prosecuting applications for reissuance of any of said Patents; (e) for interference or other priority proceedings involving said invention; and (f) for legal proceedings involving said invention and any application therefor and any Patents granted thereon, including without limitation opposition proceedings, cancellation proceedings, priority contests, public use proceedings, infringement actions, and court actions; provided, however, that the expense incurred by said Assignors in providing such cooperation shall be paid for by said Assignee.

3. The term and covenants of this agreement shall inure to the benefit of said Assignee, its successors, assigns and other legal representatives, and shall be binding upon said Assignors, their respective heirs, legal representatives, and assigns.

4. Said Assignors hereby warrant and represent that they have not entered and will not enter into any assignment, contract, or understanding in conflict herewith.

IN WITNESS WHEREOF, the said Assignors have executed and delivered this instrument to said Assignee on the dates indicated below.

C-42.007 APL 201-07401 / 1140001.001	2 of 3 PATE REEL: 9276 FRA	
2), 1998	Kenneth S. Collins	<u></u>
1), 1998	Edwin C. Weldon	<u></u>

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	,		Dennis S. Grimerd
14)		1998	
13)		1998	Shemouil Shemouilian
12)	,	1998	Arnold Kholodenko
11)	/	1998	Semyon L. Kats
10)		1998	Kadthala R. Narendrnath
9)	<i>'</i>	1998	Alexander M. Veytser
•			Ananda H. Kumar
8)		1998	
7)		1998	/ Timothy Dyer
6}	April 8	1998	Robert J. Steger
5)		1998	Den Mayden
4)	,	19 <b>98</b>	Brian Lue
3)		19 <b>98</b>	Arik Donde
3)		1998	

WHEREAS:

Names and Addresses of Inventors:

1)	Edwin C. Weldon 23613 Skyview Terrace Los Gatos, California 95030	8)	Ananda H. Kumar 1296 Knoliview Drive Milpitas, California 95035
2)	Kenneth S. Collins 165 Knightshaven Way San Jose, California 95111	9)	Alexander M. Veytser 1429 Lloyd Way Mountain View, California 94040
3)	Arik Donde 733 Stendhall Lane Cupertino, California 95014	10)	Kadthala R. Narendrnath 3686 Slope View Drive San Jose, Celifornia 95148
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7)	Timothy Dyer 167 West Jeanine Drive Tempe, Arizona 85284	14)	Dennis S. Grimard 511 Liberty Pointe Ann Arbor, Michigan 48103

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1)	1998			
		Edwin C. Weldon		
2),	1998			
		Kenneth S. Collins		
C::CLIINT:APPLIED:::07404.P1448080.501		2 of 3	PATENT	Maruh 30, 1986
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3)		1998	Arik Donde
4)	<b>/</b>	1998	Brian Lue
5)		1998	Den Meyden
6)	*	1998	Robert J. Steger
7)	April 1,	1998	Timothy Dyer
8)	<i>•</i>	19 <b>98</b>	Ananda H. Kumar
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10)	,	1998	Kadthala R. Narendmath
11)		1998	Semyon L. Kats
12)	,	19 <b>98</b>	Arnold Kholodenko
13)		1998	Shemouil Shemouilian
14)		1998	Dennis S. Grimard
CIGLENTIAM	Souchast, Profiles.col		3 of 3 PATENT NOT IN 1999 REEL: 9276 FRAME: 0665

WHEREAS:

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1)	Edwin C. Weldon 23613 Skyview Terrace Los Gatos, California 95030	8)	Ananda H. Kumar 1296 Knoliview Drive Milpitas, Californie 85035
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2), 1998	Kenneth S. Collins	
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3)	,	1998	Arik Donde
4)	,	1998	Brian Lue
5)	,	1998	Den Maydan
6)	. <u> </u>	1998 <sup>.</sup>	Robert J. Steger
7)		1998	Timothy Dyer
8)	3/23/	1998	Anende H. Kumer
9)	3/24/98	1998	AC.(LL Alexander M. Xeytser
10)	3/24/	1998	Kadthele R. Narendrnath
11)	3/24	1 <b>998</b>	Semfer Kats
12)	<u>4</u> 25	1998	Arnold Kholodenko
13)	3/24	1998	shame 1 Shame. 1.
14)	4/2	1998 උ	Bennie S. Grimerd
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